

WHAT IS CLAIMED IS:

1. A wireless communication system, comprising:
a plurality of mobile wireless station apparatuses;
5 a plurality of base station apparatuses; and
a base station control apparatus connected with said plurality of base station apparatuses and operative to output audio signals from said mobile wireless station apparatuses to all of said plurality of base station apparatuses,
said plurality of base station apparatuses operative to communicate with said mobile wireless station apparatuses on respective transmission frequencies and receiving frequencies different from one another, and in which
10 said base station apparatus is operative to transmit to said mobile wireless station apparatus a data signal indicative of "transmission permitted" when said base station apparatus can receive a transmission signal from said mobile wireless station apparatus and a data signal indicative of "transmission inhibited" when said base station apparatus cannot receive a transmission signal from said mobile wireless station apparatus,
15 said mobile wireless station apparatus is operative to monitor a receiving status of radio wave, and switch to a base station apparatus which is better in said receiving status than said base station apparatus currently communicating and transmitting said data signal indicative of "transmission permitted", when said receiving status becomes worse than a predetermined receiving status.
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2. A wireless communication system as set forth in claim 1, in which
said base station apparatus includes received signal outputting means for
25 demodulating a received radio wave into a received signal to be outputted therethrough,
separating means for separating said received signal into an audio signal and a data signal,
converting means for converting said data signal into data,
synthesizing means for generating an instructional data signal and synthesizing said
30 instructional data signal with said audio signal,
transmitting means for modulating a signal synthesized and outputted by said synthesizing means into a radio wave to be transmitted therethrough, and
controlling means for transmitting a data signal indicative of "transmission permitted" when capable of receiving a transmission signal from said mobile wireless
35 station apparatus and a data signal indicative of "transmission inhibited" when not capable of receiving a transmission signal from said mobile wireless station apparatus,

said mobile wireless station apparatus includes received signal outputting means for demodulating a received radio wave into a received signal to be outputted therethrough,
 electric field intensity detecting means for detecting an electric field intensity of said received signal,
5 separating means for separating said received signal into an audio signal and a data signal,
 converting means for converting said data signal into data,
 audio signal inputting means for inputting said audio signal,
 synthesizing means for synthesizing a data signal generated based on said data with
10 audio signal inputted by said audio signal inputting means,
 transmitting means for modulating a signal synthesized by said synthesizing means into a radio wave to be transmitted therethrough, and
 controlling means for monitoring an electric field intensity of said received signal while communicating with said base station apparatus, and detecting an electric field
15 intensity of said received signal from each of base station apparatuses other than said base station apparatus currently communicating, receiving radio waves from said base station apparatuses in decreasing order of an electric field intensity of said received signal, and switch to a base station apparatus which is transmitting said data signal indicative of “transmission permitted”, when said receiving status becomes worse than a predetermined
20 receiving status.